

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

TITLE: OUTDOOR LIGHT MOUNTING BRACKET

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BACKGROUND OF THE INVENTION

The invention relates to a novel device and method for securing an outdoor light fixture to a support surface. More particularly, the device and method of the present invention uses first and second supports to hold a light fixture to be installed in a temporary stable and secure position until a user fixedly installs the fixture through the use of fasteners and the like.

SUMMARY OF THE INVENTION

Outdoor light fixtures are often installed in locations that are only accessible by a ladder and which only permit a single person to install the fixture. Exacerbating the difficulty of installing a light fixture, current designs often require an installer to position a heavy fixture on a mounting plate with one hand while attempting to install up to three threaded fasteners with the other free hand. As may be imagined, there are a number of difficulties in performing this type of installation because the fixture is in an unstable position until the fasteners are employed. Thus, for increased ease of installation and safety, there is a need for a method ⁶² and device that supports and stabilizes the light fixture prior to the installation of the more permanent

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installation fasteners and to minimize the number of fasteners used.

The present invention solves the above mentioned problems associated with the installation of a light fixture by providing a first support that is adapted to co-act with a second support so as to hold the light fixture in a stable and supported position until the light fixture is secured to the support surface in a more permanent relationship. This is accomplished by providing on one of the supports at least one catch that engages the opposing support so as to support the weight of the fixture in a stable position while fasteners are installed.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a perspective view of one embodiment of the present invention;

Figure 2 is an exploded perspective view with portions removed to reveal aspects of the embodiment shown in Figure 1;

Figure 3 is a cross sectional view of a support used with the present invention;

Figure 4 is a front view of the support;

Figure 5 is a side view of the support shown in Figure 4;

Figure 6 is a top view of the support shown in Figure 4;

Figure 7 is an exploded perspective view of an alternate embodiment of the invention; and

Figure 8 is a side view of the embodiment shown in Figure 7.

DESCRIPTION OF THE PREFERRED EMBODIMENT

As shown in Figure 1, the present invention is designed to work with a light fixture 10 having a lens 12 and a housing 14 which contains the wiring necessary to operate light source 16. Extending outwardly from fixture 10 is an arm 20 which has a distal end 22.

As shown in Figures 1 and 2, located on distal end 22 is a first support 30 which is adapted to coact with a second support 40. As will be described in further detail below, supports 30 and 40 are adapted to support the weight of the fixture and to secure housing 10 in a stable position until the fixture may be more permanently secured to the support surface 100 by the installation of fasteners and the like.

As shown in Figures 1 and 2, support 30 is adapted to be affixed to housing 10, and as shown, it may be located on distal end 22 of arm 20. Support 30 may be integrally formed with and located on arm 20, on distal end 22, or on some other portion of housing 14. It would also be understood by those of skill in the

art that support 30 may be affixed to light fixture 10 in other ways as well such as, without limitation, fasteners, welding, rivets and the like.

As shown in Figures 1 and 2, support 30 includes an aperture 32 and notches or cut-outs 34 and 36. As further shown, aperture 32 is located above notches 34 and 36 which are linearly aligned near the bottom of support 30. Aperture 32 and notches 34 and 36 are all sized and adapted to receive projections 42, 44 and 46 which may extend outwardly from support 40.

Projection 46 may be comprised of a fastener which has a threaded portion sized to fit through aperture 49 of support 40. Projections 42 and 44, on the other hand, may be angled upwardly to form rests or stops upon which support 30 rests.

In use, support 40 is mounted to a support surface or an electrical junction box. As shown, this may be done by inserting fasteners 50 through apertures 51 and into the support surface. Prior to installing support 40, fastener 46 should be inserted through aperture 49. Of course, fastener 46 may also be integral with support 40 as well.

Once support 40 is installed, light fixture 10 is installed. To do this, a user places notches 32 and 34 onto projections 42 and 44, respectively. This engagement acts as a catch that stabilizes

the fixture by using the projections to support the weight of the fixture. This places the fixture in a hands-free state in which the installer no longer needs to physically support the weight of the fixture of the support surface.

Next, as shown in Figure 6 and while fixture 10 rests on the projections, fixture 10 is rotated upwardly until support 30 is in flush contact with support 40 and until fastener 46 extends through aperture 32. Fastener 20 is then installed which prevents the fixture from rotating downwardly, while the sized-fit between projections 42 and 44 with the square-like shaped cut-outs of apertures 32 and 34 prevent the downward, forward and sideways movement of the fixture.

As shown in Figures 7 and 8, in an alternate embodiment, a single, upwardly bent projection 110 and two threaded fastener projections 112 and 114 on plate 130 are shown. In use, plate 130 is first installed as was described above, then plate 150 which is located on the fixture in a positioned so that aperture 152 is placed over bent projection 110, and at the same time, fasteners 112 and 114 are placed through apertures 156 and 158. As described above, this places the fixture in a hands-free state in which the installer no longer needs to support the fixture on the support surface.

Next, with both free hands, the installer may use coacting fasteners 200 to more securely affix the fixture to the support surface.

As will be appreciated, this embodiment uses a single bent projection to act as a catch that supports the weight of the fixture and to hold the fixture in a stable, hands-free condition until more permanent fasteners may be installed.

While the preferred embodiments of the present invention have been illustrated and described, it will be understood by those of ordinary skill in the art that changes and other modifications can be made without departing from the invention in its broader aspects. Various features of the present invention are set forth in the following claims.